Final
Environmental Assessment
To
Replace Utility Poles at Bear Creek and Coast Road

Vandenberg Air Force Base, California

Prepared By:

30 Civil Engineer Squadron
Environmental Flight
Vandenberg AFB CA

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14. ABSTRACT

Environmental Assessment of the effects of replacing two utility poles at VAFB, CA to raise the utility lines crossing Bear Cr., and thus allow transfer of new missile satellite along this route. Higher lines required because new satellite fairing is larger than those previously transported to the launch complex accessed by this route. Significant issues discussed in the EA included effects on Threatened and Endangered Species and Cultural Resources. Consultation with U.S. FWS and State Historical Preservation Officer are attached to EA. EA concludes with a FONSI (finding of no significant impact), signed by Base Vice Commander, thus precluding the need for an EIS.

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Environmental Assessment; Vandenberg AFB; Threatened and Endangered Species impacts

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Vandenberg Air Force Base, California

Introduction and Summary

It is necessary for Vandenberg Air Force Base (VAFB) to replace two utility poles that support an electrical circuit across Bear Creek Road near its intersection with Coast Road. This circuit currently has a road-span insufficient to allow clearance for a proposed satellite payload fairing in route to Space Launch Complex 3 (SLC-3) on a transport vehicle. VAFB proposes to replace the existing utility poles with taller poles, providing a higher circuit crossing at this location allowing the needed clearance.

There are no feasible alternative routes to transport the proposed payload fairing to SLC-3. Alternative methods to allow transport along this route include replacing the overhead circuit crossing with an underground utility line to cross Bear Creek Road or by temporarily disconnecting the lines during the passage. No Action would require attempting to temporarily lift the lines during transport – this alternative is not practicable, but is considered in this evaluation.

Both natural and cultural resources warranting protection are found in close vicinity of these poles. The proposed pole replacement was found to potentially affect these resources. Surveys of the work site and consideration of the replacement operation were conducted to evaluate the potential effects of this project on these resources.

One of the two pole relocation sites is located within a known prehistoric archaeological site. As such, the effect of the pole replacement on the south side of Bear Creek was evaluated by VAFB Cultural Resources specialists. This evaluation concluded the pole replacement would not have an adverse effect on this historic property. This finding was coordinated with the State Historic Preservation Officer (SHPO), in accordance with The National Historic Preservation Act (NHPA). The SHPO concurred with this conclusion, thus no mitigation of potential effects from the proposed project on this cultural resource is required or proposed.

A biological study of the site determined that protected plant and animal species, the beach layia, El Segundo blue butterfly (ESBB), and California red-legged frog (CRLF) could be adversely affected by the Proposed Action. These potential effects resulted in development of measures by VAFB biologists to avoid and/or mitigate potential impacts caused by the proposed action. These measures were coordinated as appropriate with the U.S. Fish and Wildlife Service (USFWS) in accordance with the Endangered Species Act (ESA) through consultation with a formal Biological Assessment (BA). The USFWS concurred that the proposed measures would avoid and/or mitigate potential adverse effects to these species and the Proposed Action would not jeopardize the continued existence of these species.

Purpose and Need for the Proposed Action

Considering current plans to discontinue the Space Shuttle Program, alternative methods of launching larger and more diverse payloads onto orbit are increasingly in demand to retain and expand our space exploration, use and technology. Explorations into such technologies are underway at VAFB, but much of VAFB's existing infrastructure currently does not fully support all potential advancements in space technology. One important limitation is VAFB's facility to assist transport larger payloads between construction and assembly locations to existing launch sites.

It is currently planned to launch a payload from SLC-3, which is larger than those launched from this location in previous missions. This newly proposed payload is an Atlas V National Reconnaissance Office Satellite (NROS) payload. To accomplish this mission, it is necessary to transport the payload from its assembly location at SLC-6 to the proposed launch site at SLC-3. As Figure 1 demonstrates, the route necessary for transport of this payload uses Bear Creek Road. The existing power lines that cross Bear Creek Road are, however, currently insufficient in height to allow such a transport by this route.

The existing height of the three-wire 70 kV power lines across Bear Creek Road is 66-feet above the road. The Atlas V-NROS payload size, when loaded on a transport vehicle, extends to a total height of 66 feet. Thus, transporting the payload under these wires leaves no clearance between the tip of the payload and the circuit wires. Safety requirements and a desire to prevent potential energy dissipation between the payload and the electrical circuit require a power line height of 75-feet to effectively use this route. The Proposed Action replaces the existing power poles with taller poles to allow an electrical circuit span of 75-foot in height above the roadway. This replacement would safely allow transport of the Atlas V payload from SLC-6 to its proposed launch site at SLC-3 with no interruption to electrical supply and with no on-site participation from the VAFB electrical shop during the transportation operation.

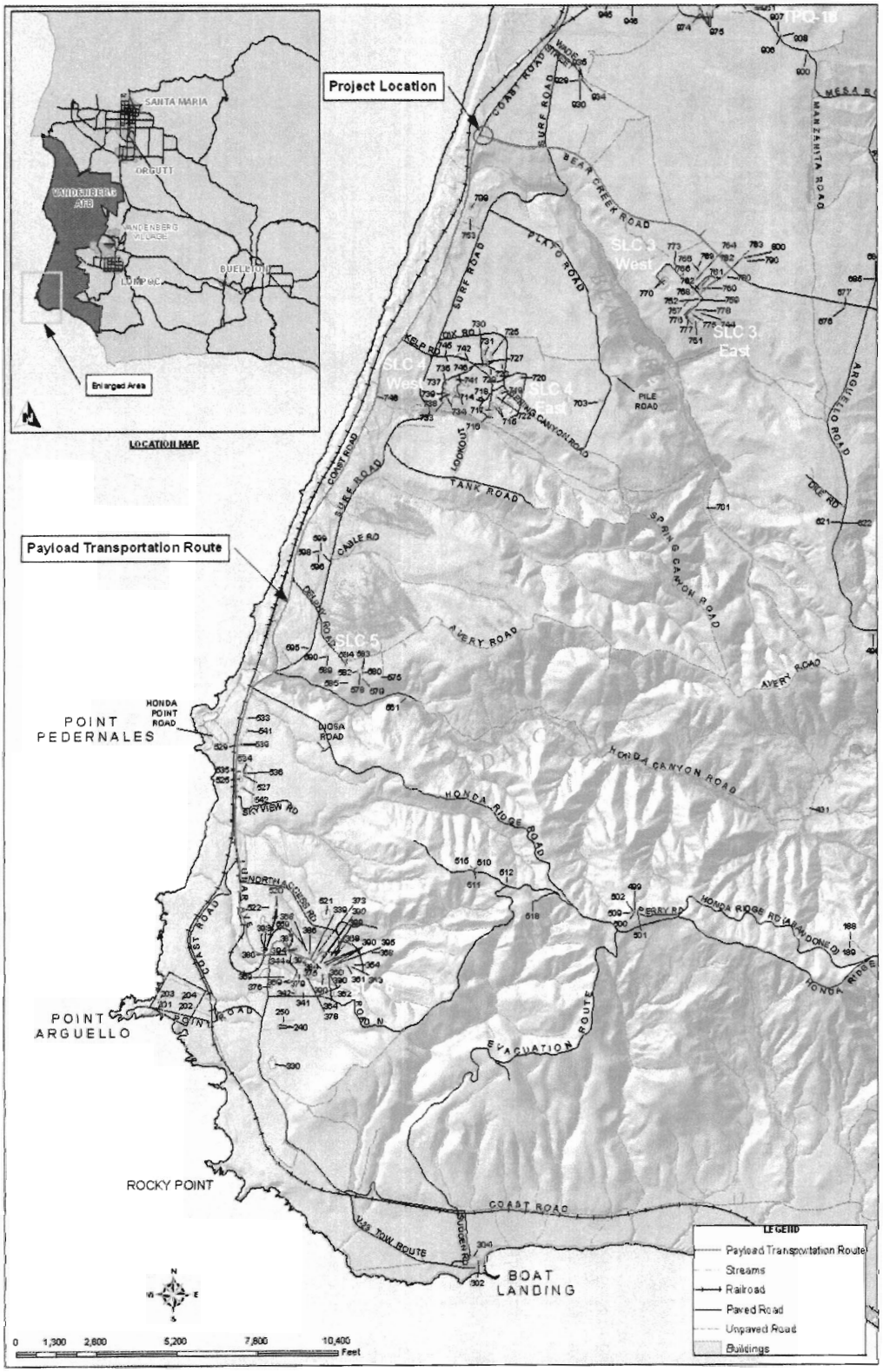


Figure 1. Project location and vicinity.

Alternatives including the Proposed Action

The Proposed Action is to replace the existing 70-foot high wooden poles with 88-foot high poles. This reconfiguration would allow positioning of the electrical circuit line at a minimum of 75-feet above the roadway to satisfy the need for the Proposed Action. Descriptions of the Proposed Action and the practicability of relatively feasible alternatives include the following:

The Proposed Action

The existing 70-foot high wooden poles would be replaced with new wooden poles that extend to 88-feet above the horizontal terrain. This operation would require the following construction work to be performed:

1. Construct a dirt road from Coast Road to the utility pole south of the Coast Road/Bear Creek Road intersection for construction access (the pole on the north side already has an access road);

2. Install two new 100-foot long wooden utility poles (each 100-foot long pole would be buried to a depth of 12 feet in a 12-inch diameter hole, allowing an 88-foot height from grade) – one on the north and one on the south side of Bear Creek, adjacent to the existing poles (Figure 2):

3. Install new guy wires on each of the two new poles using two screw/auger type soil anchors for each pole – each anchor would likely be 8 feet in length and be installed at a 60 to 45 degree angle from horizontal plane;

4. Construct insulator assemblies at the tops of the two new poles, compliant with avian protection guidelines;

5. Transfer existing 70 kV conductors from the old poles and transfer existing fiber optic pilot wire from the old poles to the new poles; and,

6. Remove the two old utility poles either by cutting each pole flush with the surrounding grade or by extraction and backfill.

Alternatives to the Proposed Action

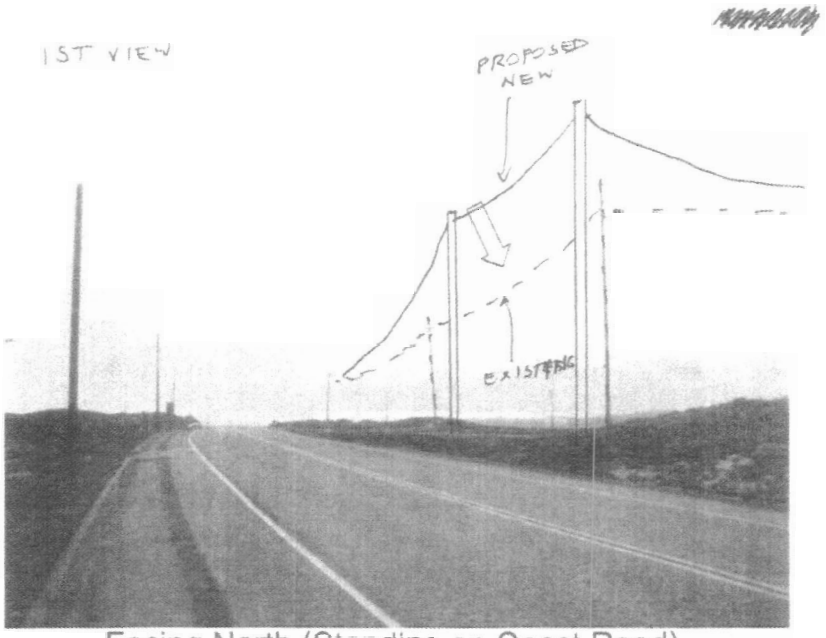
Several alternative methods of providing sufficient clearance for the Atlas V transport at Bear Creek/Coast Road were considered. Details of each alternative, including its feasibility, practicability and whether it was included in further environmental analysis are discussed as follows:

1. Install steel towers: This would allow installation of electrical circuit lines to a height well above the 75-foot minimum required for the Atlas V mission. This alternative, however, is both economically and environmentally less desirable than the proposed action for the following reasons:

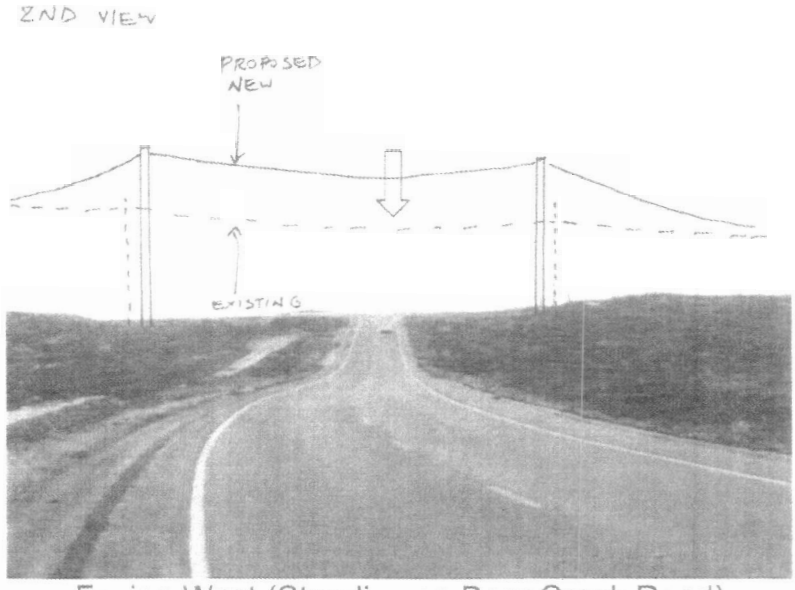
a. Steel towers are considerably more expensive than wooden utility poles, whereas the proposed 100-foot long wood poles are structurally capable of providing the needed height at a much lower cost; and,

b. Steel towers require a concrete base of considerable dimension – e.g., probably a 5-foot square foundation buried to a depth of about 20-feet – which would cause a greater impact on both the natural and cultural resources found at the site.

Because steel towers are both more expensive, and would likely entail greater environmental impacts than using longer wooden poles (i.e., the Proposed Action), this alternative was not considered practicable and was eliminated from further analysis.



Facing North (Standing on Coast Road)



Facing West (Standing on Bear Creek Road)

Figure 2. Schematic of existing and proposed power pole juxtapositions at Bear Creek and Coast Road, VAFB.

2. Extend existing poles to a sufficient height: It is possible to lengthen a pole height with the addition of extensions. Extension hardware is available and often used to increase the distance between wires to prevent bird electrocution when wires are too close together. An extension that might be used to reach the desired height for this project would have to extend the pole by approximately 10 feet. There is currently no hardware available, however, that would extend the pole to that height. In addition, the strength of the existing poles is not considered structurally sound to support the forces that would exist if the lines were raised an additional 10 feet – i.e., their diameter and burial depths are not engineered for the stresses associated with the height required. As such, this alternative was not considered practicable due to in-availability of materials and safety considerations, and was therefore eliminated from further analysis.

3. Reroute the utility lines: It would be possible to reroute the utility lines so they do not cross Bear Creek Road. Since this utility line parallels Coast Road (Figure 2), the lines could cross Coast Road somewhere north of Bear Creek Road, then re-cross Coast Road south of Bear Creek Road. This would eliminate the need to raise the power poles at Bear Creek Road. However, this alternative would most likely involve relocating at least as many as four poles, thus economically representing an even greater commitment of resources than the Proposed Project. Furthermore, an electrical system already exists along the west side of Coast Road in this location – the addition of another line system would substantially complicate that alignment. In addition, the lines that cross Coast Road would still have to be raised from their current 66-foot height to the same height as that proposed for Bear Creek (i.e., to a 77-foot height above roadway) to allow similar-sized payloads' access along Coast Road. Although sites for crossing Coast Road might be chosen to not affect either protected natural or cultural resources, such as those likely to occur at the location of the Proposed Project, the economic and engineering ramifications of this alternative are not prudent, and thus this alternative was eliminated from further analysis.

4. Install underground utility lines: Electrical utility lines are commonly located underground – usually for aesthetic reasons in housing developments. Such routing is, however, considerably more expensive than above-ground transmission. In addition, at the Bear Creek and Coast Road location of the Proposed Project, the natural and cultural resources that would be affected from the addition of new poles, as proposed, would still be affected by the installation of underground structural appurtenances. Furthermore, these effects would most likely occur in even greater magnitude, as establishing an underground facility would involve an even greater disturbance to the landscape than that associated with the Proposed Project. Thus, due to a greater economic investment, and likely greater effects on both natural and archaeological resources, this alternative was eliminated from further analysis.

5. Temporarily disconnect the circuit lines: The lines that currently block the Atlas V payload movement at this location could be cut and fitted with re-connection devices, allowing a temporary disconnect to allow passage of the Atlas V payload. This method would, however, remove the tension from the line, and require that the circuit lines be strongly affixed to the poles to supply tension necessary to support the rest of the line both north and south of the disconnection. Additional guy wires would be required to allow the two poles where the lines were fixed to support the lateral tension supporting the rest of the lines – such guy wires would have to be located essentially in Bear Creek Road, and thus eliminate passage of the Atlas V (as well as other traffic) via this route. The safety, security, and structural soundness of this methodology are so uncertain that this alternative was eliminated from further analysis.

6. Temporarily lift utility lines (i.e., No Action): It is possible, using a crane with a special attachment, to temporarily lift the sag in the circuit lines between two poles, thus extending the height of the line above the roadway. A study of this plan indicated that such a procedure could increase the clearance by approximately five feet at the Bear Creek Road crossing during the brief period of time required for the Atlas V payload to pass under the lines. The additional five feet would increase the distance to a total of 71 feet above road grade. This alteration would allow 5-feet of clearance above the Atlas V payload, but continue to present a potential hazard to the operation; which, in addition to several additional engineering problems, considerably limit the practicability of this solution. These include the following:

a. The circuit would have to be de-energized for each passage operation for two reasons: because the distance between the raised lines would not be sufficient to avoid potential electrical damage to the payload; and, because de-energization would be required to attach the lifting mechanism. Should this operation only occur once or twice, the short-term effects of de-energizing would be minor; however, should this kind of payload movement occur more frequently in the future, the continuous need to temporarily de-energize the circuit and lift the line would become increasingly problematic to security of the power supplied by this electrical route:

b. Although there is a pressing need to conduct this Atlas V payload movement a total of three times in the near future, there is the possibility that this kind of operation might occur on a more regular basis. As such, the need to conduct a temporary lift more frequently would result in a long-term commitment of resources that would be far less desirable than implementing the Proposed Project, especially in regard to scheduling intermittent losses of power security, and the need for a sustained commitment of manpower and equipment availability;

c. Due to the small clearance (5-feet after raising the line), weather conditions which might cause movements of the lines (i.e., swaying of the crane and lines) could decrease the safety of such a method and cause delays of uncertain timeframes; and,

d. There currently is not enough room on the roadway (i.e., Bear Creek Road at this location) to park a crane to lift the line, and, to allow passage of the Atlas V payload transport vehicle simultaneously. As such, were this method employed, the roadway would require widening to accommodate juxtaposition of a crane adjacent to the area requiring lifting. Such an additional requirement would incur both environmental and economic effects similar to those required to constructing an access road to the location as required to relocate the pole on the south side of Bear Creek Road (see Proposed Action, south side access roadway impacts).

This alternative is considered a No Action alternative, since it does not require any "action" other than a lifting of the electrical circuit line by temporary mechanical means. It is, therefore, by providing a practicable solution to the height requirement, despite limitations as noted above, included in further analysis by this Environmental Assessment (EA).

The Affected Environment

The proposed project would occur at the intersection of Bear Creek Road and Coast Road along the route between SLC-6 and SLC-3 as shown on Figure 1. VAFB is located on the Central Coast of California. The 99,000-acre base extends along approximately 35 miles of the Santa Barbara County coastline and varies in width from 5 to 15 miles.

Cultural Resources

VAFB contains significant cultural resources of various kinds and values. Resources of paleontological, archaeological, Cold War Era and architectural significance are common on the base. Much of the geology of VAFB includes sedimentary formations found to contain, often well-preserved, plant and animal fossils.

The area currently occupied by VAFB was once part of the tribal lands of the Chumash Indian Tribe, which currently occupies lands inland from VAFB. Remains of Chumash habitations, hunting sites, and other archaeological values, including cave drawings, are known to occur throughout the base. Other early settlement historical values, such as the San Juan Bautista historical trail which traversed the VAFB area, though no longer used or even perceptible, are recognized as culturally significant.

The south side of Bear Creek Road, near Coast Road, contains a known prehistoric archaeological site. This site is described as an area exhibiting evidence of lithic tool manufacture and repair activities. The potential archaeological significance of the site resulted in it being determined eligible as a Historic Property in accordance with the NHPA.

Natural Resources

The landscape surrounding the Proposed Project location and nearby environs is composed primarily of Central Coast Scrub with substantial areas dominated by non-native grasses and weedy vegetation growing in disturbed habitat.

Two plant species, listed by the USFWS as an endangered species in accordance with the ESA, the Gaviota tarplant and the beach layia, are often found in the vicinity of the Proposed Project. Another native species of special concern, the seacliff buckwheat, is also present in the area. Surveys by VAFB biologists did not find tarplant near the project area, but did find habitat for beach layia approximately 4,600 feet from the project area; and, found numerous specimens of seacliff buckwheat near enough to the project site to likely be affected by implementation of the Proposed Project. While not itself an endangered species, the buckwheat is protected, however, as the host plant for the ESA-listed ESBB.

VAFB biologists also surveyed the area for animals of concern that might occasionally be found in or near the project site. Of potential concern, the ESA-listed CRLF is known to be found in this area, and individuals have been documented in Bear Creek which is located about 1,000 feet south of the project location (Figure 1). Surveys by VAFB biologists did confirm suitable aquatic habitat for the CRLF along Bear Creek within approximately 1,800 feet of the Proposed Project. Adult CRLF are known to migrate between aquatic sites and could potentially be present at the project site, even though a considerable distance from suitable habitat.

Environmental Impacts of the Proposed Action and No Action

The proposed action and alternatives could result in foreseeable environmental consequences to cultural resources, natural resources, and contribute to cumulative effects from similar or contributory actions. Each of these potential impacts is discussed for the Proposed Action and the alternative of No Action.

The Proposed Action

Cultural Resources: As noted above, the south side of Bear Creek Road contains a known archaeological site. As such, the potential effect of the project on the south side of Bear Creek Road was evaluated by VAFB Cultural Resources specialists. This evaluation determined that work associated with the proposed action would occur within the boundaries of the above described archaeological site. Cultural Resource specialists considered the potential effects of drilling a 12" diameter hole in which to insert the new pole; construction of a new access road (approximately 30-feet by 200-feet in dimension) to access the poles on the south side of Bear Creek Road; installation of a new pole; installation of two new guy wire anchors using a screw/auger type soil anchor; and, work associated with connecting the insulator assemblies and transferring the electrical circuit lines from the old to the new poles. This evaluation concluded the pole replacement at this location would not have an adverse affect on this historic property. This finding was coordinated with the SHPO in accordance with the requirements of the NHPA. The SHPO concurred with this conclusion, thus no mitigation for potentially significant effects from the Proposed Action on this cultural resource is required or proposed.

Natural Resources: The area in the vicinity of the Proposed Action, as noted above, is known to provide habitat for the ESBB (i.e., seacliff buckwheat plants); potentially includes an impact zone for the beach layia; and, specimens of the CRLF might occur here should they migrate in this direction from their known habitat approximately 1,800 feet south of the project site. For this reason, VAFB biologists studied details of the proposed action to determine the likelihood and potential extent of any effects to these species. This study concluded that work associated with the Proposed Action would likely adversely affect the ESBB due to highly possible damage to specimens of its host plant located in close vicinity to the power poles. This study also concluded that actions from the project could, but would not likely adversely affect specimens of the beach layia or the CRLF.

For this reason, a BA of these potential effects was performed with particular emphasis on mitigation and avoidance of impacts to the ESBB. This BA recommended the following measures to avoid and mitigate likely adverse effects from losses of seacliff buckwheat: locating the new access road on the south side of Bear Creek Road in a manner to avoid, to the extent practicable, any effects to buckwheat specimens; using a biological monitor during project construction to mark and, to the extent practicable, have construction workers avoid impacting buckwheat specimens; and, where avoidance of impacts to seacliff buckwheat were not possible, suitable habitat for this species would be enhanced at a 3:1 ratio in a nearby area that is not likely to be designated for future development – such enhancement would include removal of invasive iceplant. Potential impacts to beach layia would be avoided by marking areas containing the beach layia prior to beginning work and instructing work crews to avoid these areas. Potential impacts to CRLF would be avoided by having the project site surveyed for specimens at the beginning of each work day to ensure no specimens are located within the impact zone during work hours; and, piles of dirt and fill material created during construction would be surrounded by silt fencing at least 2 feet high to prevent frogs from entering the area during construction.

No Action

No Action would preclude using SLC-3 to launch Atlas V NROS payloads without de-energizing and lifting the existing circuit line sufficiently to allow passage every time such a payload would need to pass this route. No Action would, therefore, involve an uncertain long-term security of the electrical supply to VAFB South Base for brief periods of time whenever such a movement would be planned. No Action would also involve careful planning with VAFB operations to supply manpower and equipment at the appropriate time to perform such an operation. No Action might present a safety hazard to personnel, equipment, and to the payload should inclement weather arise during the operation that might affect the narrow margin of safety in the distance between the lifted power lines and the payload. No Action would create an increase – though of unpredictable and presumably very small amount – in air emissions as the equipment for line-lifting would be required on perhaps numerous occasions. In addition, during electrical circuitry breaks, back-up generators may be required to ensure electrical security during missions of critical interest. Frequent use of lifting equipment and back-up generators would contribute somewhat slightly to air emissions that degrade air quality and contribute minutely to global warming.

No Action would preclude construction activities associated with replacement of the two power poles at Bear Creek Road, and thus not incur construction-related effects to natural resources as noted above.

Cumulative Effects

Implementing the Proposed Action would contribute incrementally to long-term enhancements of the utility line system throughout VAFB to accommodate increases in space technology that rely on movements of larger payloads as such needs become necessary. In some cases, as with this Proposed Action, these enhancements could also incrementally contribute to potentially adverse effects to either cultural or natural resources, as well as increase air contaminants from equipment associated with a larger effort – such increases might elevate to a measurable level, and contribute slightly to gases that affect global warming. Any such contributions would be coordinated and impacts would be mitigated in accordance with applicable laws and regulations as appropriate.

Implementing the No Action alternative would contribute incrementally to a long-term commitment of resources to individually manipulate existing utility lines as necessary whenever a large payload must be transported beneath utility lines rather than upgrade utility line heights. Such manipulations would potentially have several environmental consequences including the following: the independent actions would subject proposed movements to potential delays from weather events and negatively affect the security of the electrical supply in areas where de-energizations, in concert with "line-lifting," would be required to allow passage under lines of insufficient height; in some cases, a No Action alternative might preclude advancements in Space Technology, as increases in payloads may eventually increase in size that are not allowed by minor circuit-lifting – e.g., such instances would preclude use of that payload type at VAFB without further actions currently beyond the scope of this assessment; and, independent deployment of equipment for each payload movement would more greatly increase fuel use and air emissions, including those contributing to global warming, from equipment operations than would be increased from the Proposed Action because of the greater number of times such equipment would be required to facilitate a payload movement.

Regulatory Issues

The Air Force Environmental Impact Analysis Process (EIAP), culminating in this Environmental Assessment, ensures that relocation of the power poles at Bear Creek Road is consistent with federal, state and local laws and regulations and DOD and Air Force policy. The relevance of regulatory issues to this program include the following:

32 CFR Part 989, USAF *Environmental Impact Analysis Process (EIAP)*. This part of 64 Federal Regulations 38129 implements the Air Force EIAP process. This document (EA) follows the process outlined in these guidelines.

National Historic Preservation Act (NHPA). In accordance with Section 106 of the NHPA, this project was coordinated with the California State Historic Preservation Officer which concurred with VAFB's determination that the Proposed Action would not adversely affect a historic property located at the project site.

Endangered Species Act (ESA). In accordance with the ESA, the potential effects of the proposed action on threatened and endangered species in the vicinity of the project were evaluated – potential adverse effects from the proposed action were analyzed – formal consultation with the USFWS in accordance with Section 7 of the ESA was conducted to ensure the Proposed Action would not result in Jeopardy to ESA-listed species.

The Clean Water Act. Regulates discharge of point and non-point pollutants into waters of the U.S. There are no anticipated discharges of any pollutants from either the Proposed Action or the No Action alternative that would enter waters of the U.S.

The Clean Air Act. Regulates releases of contaminants into the air, requiring that such emissions comply with applicable requirements. There would be some minor releases of emissions from the equipment used during the power pole removals and replacements – no air conformity permits are required for this use and operation of such equipment would be conducted in accordance with regulations promulgated by the Santa Barbara County Air Pollution Control District, as appropriate. The minor release of emissions necessary for the Proposed Action would not contribute measurably to air contaminants that affect global warming.

Coastal Zone Management Act. Requires that any federal action that may affect the coastal zone must be consistent with the State Coastal Zone Management program. The Proposed Action would not affect any aspects of the Coastal Zone, as replacement of the two power poles would not result in discernable changes to any structures visible from the Coastal Zone, nor create any air or water quality emissions affecting the Coastal Zone.

E.O. 12898 Environmental Justice. Requires that federal agencies identify and address disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations. The Proposed Action is not expected to affect human health or environmental effects on any such populations.

Agencies and Persons Consulted

Contributors to the EIAP Process

VAFB 30th Space Wing, 30 CES/CEV Personnel:

Bell, Elizabeth. Natural Resources Program
Domako, Kenneth. Environmental Planning Chief
Galbraith, Steven. Cultural Resources Program
Nathe, Craig. Installation Restoration Program
Rieger, Phillip, Ph.D. Environmental Planning, EA Primary Author

VAFB 30th Space Wing, 30 CES/CEOR:

Pakulski, Dennis. Project Manager

VAFB 30th Space Wing, 30 SW/JA:

Gunderson, John, JD. Environmental Law

Regulatory Coordination/Consultation

Donaldson, Milford. State Historic Preservation Officer, State of California
Noda, Diane. Field Supervisor, USFWS, Ventura California

Public Coordination

The public comment period for this EA is from March 2, 2009 through March 13, 2009. Comments may be sent to 30 CES/CEV, 1028 Iceland Avenue, Vandenberg AFB CA 93437; or, faxed to 805/606-7407. If you have any questions, please contact Dr. Phillip Rieger at 805/605-0331.

Finding of No Significant Impact

Upon evaluating the analyses reflecting the potential environmental consequences presented in this Environmental Assessment (EA), I find that no significant impacts would result from implementation of the Proposed Action. The proposal would not affect the Coastal Zone, as defined in appropriate state regulations, nor would the proposal result in the release or disturbance of any contaminants affecting human health or the environment. All relevant regulatory issues have been considered and will be complied with as appropriate.

The evaluation included in particular both natural and cultural resources found in the vicinity of the Proposed Action that warranted special consideration. One of the two poles to be replaced was found to potentially disturb an archaeological site of historical value. Additionally, habitat for plant and animal species listed by the U.S. Fish and Wildlife Service (USFWS) as threatened and endangered were found in the vicinity of the Proposed Action. Surveys by VAFB Cultural and Natural Resources staff were conducted to evaluate these considerations.

VAFB Cultural Resources specialists studied the potential effects of the Proposed Action on the archaeological resource and concluded the project would not have an adverse affect on this cultural value. This conclusion was coordinated with the State Historic Preservation Officer (SHPO) in accordance with requirements The National Historic Preservation Act. The SHPO concurred with our conclusion in a letter dated January 8, 2009.

VAFB Natural Resources specialists studied the potential effects of the Proposed Action on threatened and endangered species found in the project vicinity. The conclusion was that the project may affect but was not likely to adversely affect two species; but, that the project would likely affect a third species. VAFB staff developed measures to avoid and/or mitigate impacts to these species. These measures were formalized in consultation with the USFWS in accordance with the requirements of the Endangered Species Act, and will be incorporated into the project plan. The USFWS concurred that the proposed measures would avoid and/or mitigate potential adverse effects to these species and that the Proposed Action would not jeopardize the continued existence of these species in their Biological Opinion dated February 18, 2009.

I conclude that this EA has been properly prepared in accordance with the National Environmental Policy Act of 1969, as implemented by 32 CFR Part 989 for the U.S. Air Force Environmental Impact Analysis Process. This EA has been coordinated with appropriate federal and state agencies and with the public, as required by these regulations.

Steven W. Winters

STEVEN W. WINTERS
Colonel, USAF
Chairman, Environmental, Safety,
and Occupational Health Council
Vandenberg AFB, CA

27 Mar 09
Date

ATTACHMENT A

COORDINATION WITH THE CALIFORNIA OFFICE OF HISTORIC PRESERVATION

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
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(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

January 8, 2009 In reply refer to: USAF081210A

Richard N. Cote
30 CES/CD
1172 Iceland Ave
Vandenberg AFB, California 93437-6012

Re: 70 kV Power Line Utility Poles Installation, Vandenberg Air Force Base, California

Dear Mr. Cote:

Thank you for your letter initiating consultation with regard to the above referenced undertaking. You are consulting with me in order to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f) as amended, and its implementing regulations codified at 36 CFR 800.

Your letter informs me that the Air Force proposes to install two 100 foot utility poles to raise the existing 70 kV power lines that cross Bear Creek Road near its intersection with Coast Road on south base. This project is necessary to allow clearance for future launch vehicles to travel underneath the power lines. The project entails building a new access road to provide line truck and high reach access, the installation of the two new poles, installing the necessary equipment to transmit power on the line, and removing two old utility poles by cutting them flush with the ground. One of the new power poles will be installed within the boundaries of CA-SBA-0534, a prehistoric property that has been determined eligible for the National Register of Historic Places (NRHP). The road construction will entail dumping soil on top of the designated access route, and will not involve the subsurface disturbance of the cultural deposit. The base archaeologist has surveyed this road and did not find any cultural material.

In addition to your letter, you have also submitted a map that outlines the project area, the archaeological evaluation reports that detail the significance of site CA-SBA-0534, and appropriate archaeological site records. The site has been tested in the immediate area of the new pole (the location of the original pole), and indicates that a low density deposit of debitage that lacks datable remains is present. Further, the archaeological studies indicate that the vertical patterning noted at the sites in the immediate area is likely related to the episodic deflation of the dunes. Because the installation of the power pole will move only a small quantity of soil, the Air Force has determined that the project's implementation will not adversely affect the cultural deposit. Based on the materials you have submitted, I agree that the Air Force has properly determined and documented the APE and that your efforts to identify historic properties within the APE were appropriate. I also concur with your finding of no adverse effect per 36 CFR 800.5 (b).

Thank you for your consideration of historic properties as part of your project planning. Please be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the Air Force may have additional future responsibilities for this undertaking under 36 CFR Part 800. If you have any questions or concerns; please contact Cheryl Foster-Curley, Project Review Unit archaeologist, at (916) 653-9019 or at ccurley@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:cfc

ATTACHMENT B

CONSULTATION WITH THE U.S. DEPARTMENT OF INTERIOR FISH AND WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO
2009-F-0180

February 18, 2009

Beatrice L. Kephart
30 CES/CEV
1028 Iceland Avenue
Vandenberg Air Force Base, California 93437-6010

Subject: Biological Opinion for the Replacement of Two Power Poles at Vandenberg Air Force Base, Santa Barbara County, California (8-8-09-F-8)

Dear Ms. Kephart:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the U.S. Air Force's (Air Force) proposed replacement of two power poles on Vandenberg Air Force Base (VAFB) and its effects on the federally endangered El Segundo blue butterfly (*Euphilotes battoides allyni*). We received your request, dated September 22, 2008, in our office on September 24, 2008. Your request and our response are in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act)(16 U.S.C. 1531 et seq.).

You determined that the project may affect, but is not likely to adversely affect, the federally endangered beach layia (*Layia carnosa*) and the federally threatened California red-legged frog (*Rana aurora draytonii*). Mantech-SRS Technologies conducted surveys for the beach layia in June 2008; no individuals were observed in the proposed project site. The closest known California red-legged frog breeding pond is approximately 1,800 feet east of the project site and no suitable habitat occurs onsite. In addition, the Air Force proposed to have qualified biologists conduct pre-project surveys for the beach layia and California red-legged frog to ensure these species are not present onsite. Therefore, we concur with your determination that the proposed project may affect, but is not likely to adversely affect, the beach layia and the California red-legged frog.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Air Force proposes to replace two power poles because the existing 70-kilovolt (kV) power lines that cross Bear Creek Road, near the intersection of Coast Road in the southern portion of VAFB, do not provide sufficient clearance to allow mission-critical payloads to travel beneath them. Accordingly, the Air Force would install two new power poles to replace the existing power poles, placing these new poles as close to the existing poles as possible.

the Chevron Preserve, and Malaga Cove. Four recovery units, based on geographic proximity, habitat similarity, and possible genetic exchange, encompass these areas with the known populations and (or) areas with restorable habitat (Service 1998).

The precise habitat requirements of El Segundo blue butterflies are not fully understood. Because El Segundo blue butterflies depend solely on seacliff buckwheat, their distribution is dependent upon the occurrence of seacliff buckwheat. The range of seacliff buckwheat is greater than the known range of the El Segundo blue butterfly; seacliff buckwheat occurs from San Diego County to the northern end of Monterey County (Pratt, pers. comm. 2006b). However, the southern extent of the El Segundo blue butterfly's known distribution is Malaga Cove in Los Angeles County; as of 2005, the northern extent of the subspecies' known distribution was the Ballona Wetlands, which is also in Los Angeles County. The El Segundo blue butterfly appears further limited to areas with high sand content (Service 1998).

In general, the El Segundo blue butterfly is negatively impacted by competition with non-native vegetation; competition, predation, and parasitism by other insects utilizing seacliff buckwheat; and habitat fragmentation. Relatively fast-growing exotics such as acacia (*Acacia* spp.), iceplant, other buckwheat species (*Eriogonum* spp.), and non-native grasses compete with seacliff buckwheat by inhibiting seedlings from sprouting and maturing to juveniles (Mattoni 1990). Pratt (1987) observed numerous insects living in seacliff buckwheat inflorescences along with El Segundo blue butterfly larvae, including lepidopterous larvae in the families of Cochylidae, Gelechiidae, Geometridae, Riodinidae, and even other Lycaenidae.

Habitat fragmentation is detrimental to small, isolated populations and produces edge effects that facilitate the introduction of invasive plant species that can out-compete and displace seacliff buckwheat. Urbanization and land conversion have fragmented the historic range of the El Segundo blue butterfly such that extant populations now operate as independent units rather than parts of a metapopulation or a single, cohesive, wide-ranging population. Small populations have higher probabilities of extinction than larger populations because their low abundance renders them susceptible to inbreeding, loss of genetic variation, high variability in age and sex ratios, demographic stochasticity, and other random, naturally occurring events such as droughts or disease epidemics (Soulé 1987). Isolated populations are more susceptible to elimination by stochastic events because the likelihood of recolonization following such events is negatively correlated with the extent of isolation (Wilcox and Murphy 1985). Given the low dispersal potential of El Segundo blue butterflies, it is unlikely that this subspecies will naturally recolonize a site.

Recently discovered population at VAFB

The El Segundo blue butterfly was reported to occur at VAFB in 2005 by Dr. Gordon Pratt and by Dr. Pratt and Dr. Richard Arnold in 2007 (Pratt, pers. comm. 2006a; L. Bell, Vandenberg Air Force Base biologist, pers. comm. 2007). However, it is not absolutely clear whether the individuals observed at VAFB are actually the El Segundo blue butterfly or morphologically similar species. Based on wing morphology, flight period, genitalia, and host plant association;

The northern pole (Pole A) has an existing access road made of crushed asphalt and gravel, but because project personnel would need access to all sides of the pole, the proposed project would extend the access road approximately 30 feet beyond the pole. The Air Force would also construct a new 30-foot by 200-foot access road from Coast Road to the southern pole (Pole B). Pole B occurs within a sensitive cultural site; consequently, the Air Force would not remove vegetation and (or) soil and instead would place 100 to 200 tons of crushed asphalt to construct the access road to Pole B.

A truck-mounted auger drill would dig each hole, which would measure 18 to 22 inches in diameter and 12 to 14 feet deep. Any vegetation within 6 to 8 feet of the new hole would be directly covered with sand from digging the hole. Concrete would not be used to stabilize the poles, as the depth of the hole and guy wires would provide sufficient support. The guy wires would be anchored into the ground 85 feet from the base of the pole with a screw 6 feet long and 18 inches in diameter.

Once the insulators and cross-arm assemblies are installed on the new poles, project personnel would transfer the 70-kV power lines from the old poles to the new poles. Subsequently, the old poles would be cut at the base, removed, and disposed of at the landfill.

As part of the project description, the Air Force will implement the following measures to minimize the adverse effects to the El Segundo blue butterfly:

1. A qualified biologist, familiar with seacliff buckwheat (*Eriogonum parvifolium*) will survey the project area and flag individual plants that are feasible to avoid;

2. When individual seacliff buckwheat plants cannot be avoided, the Air Force will enhance nearby suitable habitat that is not likely to be designated for future development at a 3:1 ratio (habitat enhanced:habitat adversely affected). Enhancement activities will consist of removing invasive iceplant (*Carbobrotus* spp.);

3. Work activities will occur prior to June 1, to avoid the period when adult El Segundo blue butterflies are typically active (June 1 to September 15);

4. The Air Force will use the minimum amount of imported fill to construct the access roads. Excess fill will be removed from the project site; and

5. Because the project activities are scheduled to occur during the rainy season, the Air Force will place silt fencing around any dirt piles and fill material.

STATUS OF THE SPECIES

El Segundo Blue Butterfly

The El Segundo blue butterfly was federally listed as endangered on June 1, 1976 (Service 1976). Critical habitat for the subspecies has not been designated. We issued a recovery plan for

the El Segundo blue butterfly on September 28, 1998 (Service 1998). The El Segundo blue butterfly was formally described by Oakley Shields (1975) based on specimens that had been collected in the city of El Segundo, California.

The El Segundo blue butterfly is in the family Lycaenidae. It is one of five subspecies comprising the polytypic species, the square-spotted blue butterfly *(Euphilotes battoides)*. These butterflies inhabit southern California, southern Nevada, Arizona, and northern Mexico. For several decades following the subspecies' description, the El Segundo blue butterfly was presumed to be endemic to southwestern Los Angeles County in coastal southern California. The adults have a wingspan of 0.75 to 1.25 inches. The wings of males are a brilliant blue color with an orange border on the rear of the upper hindwings. The females have dull brown colored wings with an orange border on the upper distal surface of the hindwings (Service 1998).

Like all species in the genus *Euphilotes*, the El Segundo blue butterfly spends its entire life cycle in intimate association with a species of buckwheat, in this case seacliff buckwheat. However, the nearly complete association of all life stages with a single plant is unique among North American butterflies. El Segundo blue butterfly adults mate, nectar, lay eggs, perch, and in most cases probably die on flower heads (Mattoni 1990).

The adult stage of the El Segundo blue butterfly begins in early June and concludes in early to mid-September. The onset of this stage is closely synchronized with the beginning of the flowering season for seacliff buckwheat (Mattoni 1990). Typically, adult females survive up to 2 weeks whereas a male may survive up to 7 days (G. Pratt, Department of Entomology, University of California Riverside, pers. comm. 2006a). Upon emergence as adults, females fly to seacliff buckwheat flower heads where they mate with males that are constantly moving among flower heads (Service 1998). Eggs hatch within 3 to 5 days. The larvae then undergo four instars to complete growth, a process that takes 18 to 25 days (Service 1998). By the third instar, the larvae develop honey glands, and are thereafter usually tended by ants (e.g., *Iridiomyrmex humilis*, *Conomyrmex* spp.), which may protect them from parasitoids (e.g., Branchoid wasp (*Cortesia* spp.)) and small predators (Mattoni 1990). The larvae remain concealed within flower heads and initially feed on pollen, then switch to feeding on seeds sometime during the first and second instar (Pratt, pers. comm. 2006a). Larvae are highly polymorphic, varying from almost pure white or yellow to strikingly marked individuals with a dull red-to-maroon background broken by a series of yellow or white dashes (Mattoni 1990). By September, seacliff buckwheat plants have generally senesced and the larvae fall or crawl to the ground and diapause in the soil. They emerge as adults the following June. Some pupae may remain in diapause for 2 or more years (Service 1998). At least 0.5 inch of rain must penetrate the soil to accumulate enough moisture for the pupae to undergo a life stage change (Pratt, pers. comm. 2006a).

Historically, the El Segundo blue butterfly likely inhabited much of the El Segundo Dunes. Museum records reveal that the El Segundo blue butterfly was once widespread on the El Segundo sand dunes and specimens were collected at El Segundo, Redondo Beach, Manhattan Beach, and at several locations on the Palos Verdes peninsula (Donahue 1975). There are known populations at four locations in Los Angeles County: the Baliona Wetlands, the Airport Dunes,

these individuals were determined to be more similar to the El Segundo blue butterfly than to any other known *Euphilotes battoides* group taxon (G. Ballmer, Department of Entomology, University of California Riverside, pers. comm. 2006; Pratt, pers. comm. 2006c). Therefore, we consider this species to be the El Segundo blue butterfly until we receive definitive information demonstrating otherwise. Given the geographic separation between VAFB and the El Segundo Dunes (approximately 120 miles) and the relatively limited dispersal capability of El Segundo blue butterflies, it is possible that the butterflies observed at VAFB are not El Segundo blue butterflies but rather an undescribed species. Butterflies in the genus *Euphilotes* can be very similar morphologically yet significantly different genetically (Mattoni 1990; Pratt 1994). Conversely, it is also possible that suitable habitat for the El Segundo blue butterfly was once contiguous from the El Segundo sand dunes to Santa Barbara County and has been displaced in some areas by development and other anthropogenic causes.

The uncertain taxonomic status of the populations that were recently discovered at VAFB makes it impossible to assess whether the current distribution of the El Segundo blue butterfly is different from the range previously stated. To conclusively determine the identity of these butterflies, VAFB has collected male individuals to compare the genetic signatures among the butterflies from VAFB with known El Segundo blue butterflies. However, clarifying the taxonomic status of these populations will not be trivial as *Euphilotes* is a diverse genus with known cryptic speciation (Mattoni 1988). Wing characters are notoriously unreliable due to individual variability, so single individuals usually cannot be confidently determined without other clues such as location, flight season, and larval host plant (Ballmer, pers. comm. 2006).

Based on the most recent surveys conducted at VAFB, the Air Force observed the El Segundo blue butterfly at 196 locations. Arnold (1986) conducted capture-recapture studies in Los Angeles County and reported that the majority of El Segundo blue butterflies moved 100 feet or less between captures; 79 percent and 87 percent for females and males, respectively. Approximately 93 percent of females and males moved 200 feet or less, and only 3 percent of females and 4 percent of males moved more than 500 feet. The farthest distance moved by any individual butterfly was 7,200 feet (1.36 miles). Therefore, taking into account that the vast majority of individual El Segundo blue butterflies move 200 feet or less, calculating a 200-foot buffer around each known occupied location produces a figure of approximately 280 acres of known occupied habitat at VAFB.

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) of the Act define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 Code of Federal Regulations (CFR) 402.02). For the purposes of this biological opinion and based on information provided by the Air Force, we consider the action area to include approximately 0.61 acre encompassing the project site; 0.16 acre consists of existing pavement, 0.36 acre consists of invasive plant communities, and 0.09 acre contains coastal dune scrub vegetation. The designated parking and staging areas encompass 0.06 acre, the access road and impacted area for Pole A is 0.29 acre, and the access road and impacted area

for Pole B is 0.26 acre. Figure 2 of the biological assessment (Air Force 2008) depicts a map of the action area.

The proposed project site is in a stabilized foredune approximately 1,000 feet from the Pacific Ocean. Invasive plant species such as iceplant and European beach grass (*Ammophila arenaria*) cover approximately 80 percent of the vegetated area. Native plant species at the project site include, but are not limited to, seacliff buckwheat, coyote brush (*Baccharis pilularis*), dune lupine (*Lupinus chamissonis*), and croton (*Croton californicus*).

Air Force staff observed seacliff buckwheat plants around both power poles. On June 10, 2008, Dr. Arnold observed a freshly emerged female El Segundo blue butterfly approximately 500 feet from the project site.

EFFECTS OF THE ACTION

Approximately 66 seacliff buckwheat plants (0.09 acre) would be directly affected during the project activities. Constructing the access roads could permanently remove about 18 plants and 0.04 acre of vegetation. About 48 seacliff buckwheat plants within 0.05 acre of habitat could be adversely affected by foot traffic and soil compaction, but these impacts are likely to be temporary. Up to eight seacliff buckwheat plants could be permanently removed or temporarily affected by the installation of the guy wires, but the wires' exact locations and associated effects cannot be determined until the power poles are erected. Moreover, seacliff buckwheat plants could be crushed by the existing power poles if they fall onto nearby patches of buckwheat after they are cut during removal.

The removal of, or damage to, seacliff buckwheat plants during the period when the El Segundo blue butterfly is typically active could result in the loss of all life stages of individual butterflies because this subspecies spends its entire life cycle in very close association with its host plant. However, the proposed project activities will occur prior to June 1; therefore, adult butterflies will not be killed or injured. Pupae, on the other hand, could be crushed or otherwise injured as project personnel, equipment, and vehicles traverse the action area performing the project activities. Additionally, if seacliff buckwheat plants are removed that harbor diapausing pupae, these host plants may not be available for the butterflies to use upon their emergence from the soil, which could disrupt the butterfly's normal behavioral patterns such as breeding and feeding.

The Air Force proposed to transplant approximately 18 seacliff buckwheat plants that would be permanently removed by the project activities. These plants may not tolerate transplantation well, although relocating the plants outside of the action area instead of allowing them to be permanently removed may permit the plants to survive and provide the butterflies the opportunity to utilize these plants upon their emergence from the soil to breed, feed, and shelter. Conversely, these plants may die after transplantation.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We are not aware of any non-Federal actions that are reasonably certain to occur in the action area.

CONCLUSION

After reviewing the current status of the El Segundo blue butterfly, the environmental baseline, the effects of the action, and the cumulative effects, it is the Service's biological opinion that the replacement of two power poles and the associated construction of access roads would not jeopardize the continued existence of the El Segundo blue butterfly. We have reached this conclusion because:

1. The project activities would occur prior to June 1 when adult butterflies typically emerge from the soil to breed;

2. A small number of seacliff buckwheat plants would be removed or damaged; and

3. The Air Force will implement measures to minimize the project's adverse effects to the El Segundo blue butterfly and its host plant.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this incidental take statement. To monitor the impact of incidental take, the Air Force must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR 402.14(i)(3)].

We anticipate that the El Segundo blue butterfly would be subject to take in the form of mortality, injury, or harm. The El Segundo blue butterfly has been observed approximately 500

feet from the action area; therefore, we assume that the El Segundo blue butterfly could occupy some of the seacliff buckwheat plants within the action area. Because the proposed project activities are expected to occur prior to June 1, during a time period in which the El Segundo blue butterfly would be in diapause at the base of the seacliff buckwheat plants or in the soil near the base of these plants, we do not anticipate any adult butterflies would be killed or injured. However, the project activities may crush or otherwise injure diapausing pupae. Additionally, adult El Segundo blue butterflies that emerge from their pupae could be adversely affected to a point that reaches harm if they have to fly a considerable distance to other seacliff buckwheat plants to feed, breed, and shelter.

This incidental take statement does not exempt any activity from the prohibitions against take contained in section 9 of the Act that is not incidental to the action as described in this biological opinion. El Segundo blue butterflies may be taken only within the defined boundaries of the action area as described in the Environmental Baseline section of this biological opinion.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measure is necessary and appropriate to minimize take of the El Segundo blue butterfly.

> The Air Force must ensure that the level of incidental take that occurs during project implementation is commensurate with the analysis contained herein and the Air Force must use qualified personnel to minimize the take of El Segundo blue butterflies.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Air Force must comply with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are non-discretionary.

1. We assume that the average seacliff buckwheat plant contains about 300 flower heads and may produce 30 El Segundo blue butterfly adults. However, the population at VAFB occurs in much less dense numbers than other known populations (Pratt, pers. comm. 2007). Generally, El Segundo blue butterflies are not common anywhere they are observed. If more than one (1) El Segundo blue butterfly is found dead or injured, the Air Force must notify the Ventura Fish and Wildlife Office immediately. We will then review the project activities to determine if additional protective measures are needed. The cause of death or injury must be determined by a Service-approved biologist. Project activities may continue during this review period, provided that all protective measures proposed by the Air Force and the terms and conditions of this biological opinion have been, and continue to be, implemented.

2. A Service-approved biologist(s) must conduct a training session for all project personnel prior to the onset of any ground-disturbing activities within the action area. At a

minimum, this training must include a description of the El Segundo blue butterfly and its habitats, the general provisions of the Act, the necessity for adhering to the provisions of the Act, the penalties associated with violating the provisions of the Act, the specific measures that are incorporated into the description of the proposed action to avoid and (or) minimize the adverse effects to the El Segundo blue butterfly, and the areas in which the project activities may be accomplished.

3. Liz Bell is hereby authorized to independently conduct all monitoring activities for the El Segundo blue butterfly, and serve as the Service-approved biologist for determining causes of injury or mortality of El Segundo blue butterflies and conduct personnel training sessions pursuant to this biological opinion. Liz Bell and Luanne Lum are hereby authorized to transplant seacliff buckwheat plants in association with the proposed project. The Air Force must request our approval of any other biologist it wishes to employ to conduct the monitoring activities and otherwise serve as Service-approved biologists at least 15 days prior to any such activities being conducted.

   Please be advised that possession of a 10(a)(1)(A) permit for the covered species does not substitute for the implementation of this measure. Authorization of Service-approved biologists is valid for this project only.

REPORTING REQUIREMENT

The Air Force must provide a report to the Service within 90 days following the completion of the activities covered by this biological opinion. The report must document the number of El Segundo blue butterflies killed or injured during the course of the project; a summary of the effectiveness of the terms and conditions of this biological opinion; and any suggestions of how these measures could be changed to improve conservation of these species while facilitating compliance with the Act. This document will assist the Service in evaluating appropriate measures for conservation of the El Segundo blue butterfly during future projects.

DISPOSITION OF DEAD OR INJURED SPECIMENS

Upon locating a dead or El Segundo blue butterfly, initial notification must be made to the Ventura Fish and Wildlife Office by facsimile at (805) 644-3958 immediately and in writing at the letterhead address within 3 working days. Notification must include the date, time, and location of the carcass; cause of death, if known; and any other pertinent information.

Care must be taken in handling injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological material in the best possible state for later analysis. The finder of injured specimens has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed, unless to remove it from the path of further harm or destruction. Should any listed species survive injury, the Service must be contacted regarding their final disposition.

The remains must be placed with educational or research institutions holding the appropriate State and Federal permits, such as the Santa Barbara Natural History Museum (Contact: Paul Collins, Santa Barbara Natural History Museum, Vertebrate Zoology Department, 2559 Puesta Del Sol, Santa Barbara, California 93460, (805) 682-4711, extension 321).

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse affects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

> The Air Force should continue conducting El Segundo blue butterfly surveys of any areas at VAFB that contain seacliff buckwheat to refine our knowledge of the subspecies' distribution.

REINITIATION NOTICE

This concludes formal consultation on the effects of the replacement of two power poles at VAFB. Reinitiation of formal consultation is required if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the agency action that may adversely affect listed species or critical habitat in a manner or to an extent not considered in this biological opinion; 3) the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this biological opinion; or 4) a new species is listed or critical habitat designated that may be affected by this action (50 CFR 402.16).

If you have any questions regarding this biological opinion, please contact Nic Huber of my staff at (805) 644-1766, extension 249.

Sincerely,

Diane K. Noda

Diane K. Noda
Field Supervisor

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PERSONAL COMMUNICATIONS

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Pratt, G. 2006b. Electronic mail. El Segundo blue butterflies at VAFB. Dated August 31, 2006. Department of Entomology, University of California Riverside, California.

Pratt, G. 2006c. Electronic mail. El Segundo blue butterfly identification. Dated August 24, 2007. Department of Entomology, University of California Riverside, California.

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